

Testimony of

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Thank you for this opportunity to speak on the role of public health professionals in responding to a biological weapons attack. I am the Chief of the Communicable Disease Control Section for Public Health – Seattle & King County, a large metropolitan health department in Washington State. I am an infectious disease physician trained as a medical epidemiologist and I have a background in emergency medicine. Public Health – Seattle & King County has been involved in bioterrorism preparedness activities since the November 1999 World Trade Organization (WTO) Ministerial conference in Seattle.

Early detection of a biological weapons attack at the local level is a critical first step in an effective response strategy. Because the initial detection of a biological weapons attack will occur at the local level, a primary role for public health professionals is timely detection and investigation of unusual clusters of illnesses that are compatible with a biological weapons attack. Once a potential biological weapons attack is detected, local public health professionals would be required to rapidly investigate to confirm the event. Ultimately, confirmation would require local health jurisdictions have ready access to appropriate laboratory support with the diagnostic capabilities to definitively identify agents of biological warfare.

When a biological weapons attack is suspected or confirmed, public health professionals must employ ongoing surveillance and epidemiological analyses to determine the location and magnitude of the problem, identify the exposed population in order to target prevention and treatment, and monitor the extent of the outbreak. In order to limit the spread of a communicable agent in the population, public health professionals must carry out labor intensive epidemiological investigations to identify for treatment or quarantine persons exposed to the biological agent. For certain biological agents, the contacts of persons who become ill should also be identified for preventive measures.

Public health professionals must be able to provide ongoing, accurate information related to the current status and progress of the situation and the impact on local resources. This information is necessary to anticipate what additional resources may be

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needed and must be communicated efficiently to all appropriate entities involved in response activities at the local, state and federal level.

The ability to determine and provide the information critical for an effective response to a biological weapons attack requires a robust surveillance and epidemiology capacity at the local and state level. A strong local surveillance and epidemiological capacity requires adequate numbers of trained public health professionals as well advanced surveillance system architecture and information transfer technology. Improvements in surveillance system and information transfer capabilities and networks are necessary to allow rapid communication of surveillance data and other information between health departments and hospitals, laboratories, emergency management and emergency medical systems.

Once an unusual cluster of illness is detected in the community, adequate numbers of trained public health personnel must be available locally to investigate. Local and state health departments must have adequate resources to conduct high quality outbreak investigations. Currently, many public health agencies are functioning with the minimum amount of staff required to perform routine day-to-day operations with little 'surge capacity' to respond to naturally occurring communicable disease outbreaks of modest scope.

For example, in the weeks before the November 1999 WTO Ministerial conference in Seattle, increasing media coverage led public health professionals at Public Health – Seattle & King County to the conclusion that the meeting was a potential venue for a biological weapons attack. Concerned that our existing routine surveillance system would not rapidly detect a biological weapons attack, planning was initiated to evaluate what local preparedness and response resources would be needed in case of such an event. Current procedures for communicable disease surveillance rely on submission of reports of laboratory-confirmed diseases from health care providers and laboratories. There is a time delay associated both with the identification of the agent of disease and the traditional communication channels used for disease reporting. In order to detect a biological attack rapidly, it would be desirable to be aware of any unusual increase in the number of ill persons in the community as quickly as possible, before such an increase would be reported through current routine surveillance mechanisms.

To enhance our ability to detect a potential biological weapons attack, assistance was requested from the Centers for Disease Control and Prevention (CDC) for the design and staffing of a special "syndromic" surveillance system that could be rapidly implemented for the WTO conference. The enhanced surveillance system was put in place one week before the conference and operated through December 11, 1999 in collaboration with eight medical centers in Seattle and King County.

Once implemented, the enhanced surveillance system allowed us to monitor on an around-the-clock basis over 10,500 clinical visits to area emergency departments during the surveillance period. We were able to detect and rapidly investigate "critical" clinical syndromes such as sudden death and botulism-like illness as well as identify clusters of other illnesses compatible with potential exposure to agents of biological warfare or with naturally-occurring communicable disease outbreaks. We were also able to monitor the selected clinical syndromes specifically among persons associated with the WTO conference. Daily surveillance reports were provided to local, state and federal agencies

as well as area medical facilities. After the conference the enhanced surveillance system was dismantled. Ongoing optimal detection of potential biological weapons attacks will require sustainable improvements in surveillance system architecture and methods.

The second major role for local public health professionals is to facilitate the medical response to a biological weapons attack. This includes assuring evaluation, treatment and preventive measures for the exposed population including possible mass vaccination and/or chemoprophylaxis treatment and delivery of appropriate resources to local health care facilities.

Prioritization of the delivery of federal resources is needed to effectively engage health care facilities and medical professionals with public health departments in planning and response activities for a biological weapons attack. The first responders in the event of a biological weapons attack will be health care professionals in hospitals and emergency departments and public health professionals, not the traditional first responders such as firefighters and law enforcement. It is likely that the local medical infrastructure will be rapidly overwhelmed with the response to a biological weapons attack. Shortages of medical equipment and supplies and inadequate numbers of available medical professionals would be anticipated.

Experience in Seattle-King County, both during the 1999 WTO conference and with naturally occurring communicable disease outbreaks indicates that medical institutions and practitioners look to local public health agencies for information, guidance and resources when an outbreak exceeds the capacity of the local medical care system. The ability of health care institutions to respond to unanticipated increases in the numbers of patients with communicable diseases associated with even relatively small, naturally-occurring outbreaks, is limited. Local public health professionals need to anticipate what resources will be needed for the medical response to a biological weapons attack and must be able to assure the efficient delivery and distribution of needed supplies, equipment, and other material and human resources from local, state and federal agencies.

Local public health professionals in collaboration with emergency management agencies will need to facilitate the appropriate utilization of available health care resources to assure the availability and delivery of medical supplies and equipment as well as coordinate activities related to the delivery of medical care to the exposed population. Public health professionals should develop procedures for providing expanded access to the health care system in collaboration with local and state medical professionals, hospitals, response agencies and political leaders.

Guidelines are needed to define how medical, pharmaceutical and other health-related resources will be accessed, managed, prioritized and distributed. Agreements must be established to define and coordinate the roles and responsibilities of the multiple local, state, federal and private sector agencies involved in assuring an efficient medical response.

A third key role of local public health professionals is to provide accurate and clear information for decision making and communication. The timely dissemination of information to authorities and agencies involved in the response to a biological weapons

attack, the medical community and the public is an essential component of an effective response. Under our current local protocols, preliminary evidence of a biological weapons attack will be communicated to local and state agencies involved in response activities through activation of departmental, city, county, and state emergency operations centers. Subsequent communications would be made according to protocols established by the emergency operations centers.

Up to date surveillance, epidemiological and clinical data necessary to monitor the outbreak must be provided to local, state and federal agencies as well as political leaders and the public in order to ensure an appropriate ongoing response. To achieve this, improvements in surveillance and communication systems are needed to allow more efficient transfer of surveillance data and to facilitate information exchange among local, state and federal public health agencies. In addition, a biological weapons attack would require effective communication between public health and law enforcement agencies, particularly local law enforcement and FBI officials.

Public health professionals will be expected to provide technical information to the medical community related to the medical management of exposed populations including evaluation, treatment, and infection control recommendations. Effective communication to the public through the news media is critical to reduce panic in the community and provide appropriate guidance to both exposed and non-exposed persons. The availability of disease appropriate, targeted informational materials for health care providers, the public and the media will be needed to meet the demand for information during a biological weapons attack. Public health departments must have adequate human and technical resources available to effectively disseminate critical information. Communication procedures and information transfer protocols must be established for the various types of communications that will be needed during the response to a biological weapons attack.

In summary, public health professionals along with local health care institutions and medical professionals are the front line responders to a biological weapons attack. Key roles for public health professionals include detecting, describing and monitoring the course of a biological weapons attack, assuring an adequate community-wide medical response, and providing needed information and effective communication to all parties involved in response activities and the public.

Improvements in our ability to effectively respond to a biological weapons attack are needed and can be achieved by strengthening basic surveillance and epidemiological capacity and through enhancing information and communication systems at the local and state level. Effectively engaging the medical community in biological weapons response planning should be given high priority.